

# BULLETIN

OF

## MISCELLANEOUS INFORMATION.

No. 5]

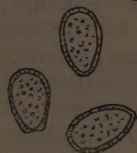
[1922

### XXV. FUNGI EXOTICI. XXVI.

E. M. WAKEFIELD.

#### *Ganoderma simulans*, Wakef.

*Pileus* sessilis vel lateraliter stipitatus, circa  $8 \times 5-7$  cm., 1-1.5 cm. crassus. *Superficies* nigra, nitida, tenuiter incrustata, glabra, radiato-rugulosa, marginem versus plus minus anguste sulcata, margine obtuso, deflexo, undulato, concolore. *Hymenium* applanatum vel concavum. *Contextus* pallidus, lignoso-fibrosus, 2 mm. crassus (raro 3-5 mm.). *Tubuli* pallide brunnei, 5-10 mm. longi. *Pori* minuti, punctiformes, crasse tunicati, albido-grisei vel isabellini. *Sporae* ovoideae, apice demum truncatae, ferruginosae, punctatae,  $20-23 \times 12.5-13\mu$ .



*Ganoderma simulans*.  
Spores  $\times 500$ .

TROPICAL AFRICA. Mwachi River, Mazeras, growing from the dead roots of trees, T. D. Maitland, No. 556, Mar. 1921.

The fungus is said to be fairly plentiful in the locality where found. Sessile, somewhat ungulate forms are found attached to stumps, while the stipitate forms grow up from buried roots, as in the case of *G. lucidum*.

The name *simulans* has been given to the species on account of its remarkable resemblance to *Fomes subresinosus*, Murr. So striking is this that the suspicion remains that they must be connected. Yet careful search has failed to disclose any trace of *Ganoderma* spores in the specimens of *F. subresinosus* examined, while in this plant they are very abundant. On the other hand it is to be noted that the spores of *F. subresinosus* are not hyaline and globose as described, but large ( $17-20 \times 10-12.5\mu$ ), ovoid, and slightly tinged with brown. They are however perfectly smooth, and have no indication of the outer hyaline wall characteristic of *Ganoderma*. The spores of *F. subresinosus* are in fact like those of the genus *Amauroderma*.

#### *Hexagonia sericata*, Wakef.

*Pileus* appplanatus, dimidiato-sessilis. 11-17 cm. latus, 7-9 cm. longus, fusco-umbrinus, unicolor, radiato-sericeus, zonis angustis concentricis notatus, postice vix tomentoso-velatus. *Tubuli* ad 7 mm. longi, rigidi, tenuiter tunicati, intus subglaucescentes.

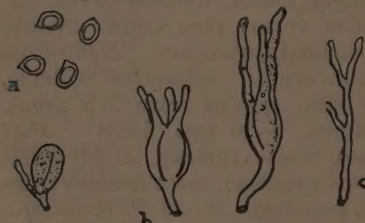
*Pori* elongato-hexagonales, concolores, 3-4 mm. diametro. *Sporae* non visae.

TROPICAL AFRICA. Nairobi, on dead wood, *Dr. Van Sumerun*, Oct. 1920.

A beautiful species, of a uniform dull brown colour ("Mummy Brown" of Ridgway), with large fairly regular pores. It evidently belongs to the same section as *H. subvelutina* Wakef., but differs from that species in its regular shape, and especially in colour. The silky appearance of the pileus is a marked character. Bearing in mind the very different appearances which *H. Pobeguini* may assume at different stages, it seems just possible that both this plant and *H. subvelutina* may be forms of one species. The three fine specimens in the present collection are however all alike and show no suggestion of transition.

### *Sebacina alutacea*, Wakef.

*Fungus* late effusus, incrustans, in sicco alutaceus, coriaceus.



*Sebacina alutacea*  $\times 500$ .  
a Spores. b 3 basidia in different stages.  
c Paraphysis.

*Hymenium* laeve, alutaceum, margine sterile albido fimbriato. *Subiculum* crassum; stratum basale ex hyphis confertis parallelis, stratum medium ex hyphis tenacibus ramosis laxe intertextis 2 diam. constitutum. *Paraphyses* erectae, flexuosae, filiformes, sursum ramosae, 1.5-2 $\mu$  diametro. *Basidia* ovoidea,

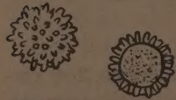
verticaliter 4-partita, 12-18  $\times$  9-12 $\mu$ , sterigmata 20-30  $\times$  3 $\mu$ , *Sporae* oblongae, l-guttulatae, hyalinae, laeves, 6-8  $\times$  5-6 $\mu$ .

INDIA. Ganjam, Madras, encrusting the bases of young saplings of *Shorea robusta*, Gaertn. f., *A. F. Minchin*, Aug. 1918.

This species is very close to *S. incrustans*, Tul., which it resembles in habit, texture, and colour when dry. The specimen sent is almost entirely resupinate, but there is evidence of a tendency to form small columnar or fan-shaped outgrowths such as occur in *S. incrustans*. The present plant differs chiefly in the smaller size of hyphae, basidia, and spores. In structure it shows three very distinct layers, hymenium, a medial layer of loosely woven hyphae, and a basal layer of close parallel hyphae next the substratum.

### *Ustilago verruculosa*, Wakef.

*Sori* ovaria deformantes, fusco-cinnamomei, membrano griseo demum sursum aperto tecti. *Sporae* subglobosae, pallidae, crasse denseque verruculosae, cum verrucis 18-22 $\mu$  diametro, hyphis sporisque majoribus hyalinis inte mixtis.



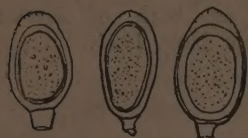
*Ustilago verruculosa*.  
Spores  $\times 500$ .

TROPICAL AFRICA. Congo, in the ovaries of *Setaria aurea*, A.B., *H. Vanderyst*, No. 5054, Jan. 1914.

The species differs from *U. Setariae-aureae*, P. Henn. and *U. Evansii*, P. Henn., both of which occur on the same host, in the pale colour of the sori, and the larger, very coarsely warted spores. The latter spore-characters distinguish it also from *U. heterospora*, P. Henn., to which it is very closely related.

***Uromyces pustulatus*, Wakef.**

*Sori teleutosporiferi varii*, in ramulis foliisque minuti, rotundati, 1-1.5 mm. diametro, in fructibus elongati, confluentes, pustulas ad 2.5 cm. longas efformantes, primo epidermide tecti, demum erumpentes, castanei, pulverulenti. *Teleutosporae* ovatae, ellipsoideae, pyriformes, vel compressione angulatae, minutissime echinulatae,  $22-35 \times 19-20\mu$ , apice hyalino incrassato. *Pedicelli* hyalini, decidui, ad  $30 \times 3\mu$ .



*Uromyces pustulatus*.  
Teleutospores  $\times 500$ .

**TROPICAL AFRICA.** Kibos, Mombasa, on leaves, inflorescences, and fruits of *Bauhinia fassoglensis*, Kotschy, T. D. Maitland, Feb. 1921.

Among the various species of *Uromyces* found on *Bauhinia* this one is noteworthy for occurring on leaves, peduncles and fruits. On the leaves and stems the pustules are of the usual small round type, but on the pods they become large and confluent, forming eventually very large raised pustules which give a "scabby" appearance to the fruit.

The teleutospores resemble closely those of *U. goyazensis*, P. Henn., both in shape and in the fact that the markings on the episporium are very fine, and only clearly visible when the spore is examined dry or in lactic acid. The markings in *U. pustulatus* are however in the form of very fine warts, not reticulations such as are described for *U. goyazensis*.

When the teleutospore is mounted in water the wall swells up and becomes more distinct. At the same time it loses its markings and becomes perfectly smooth, except at the thickened hyaline apex, where a little fine warting is visible.

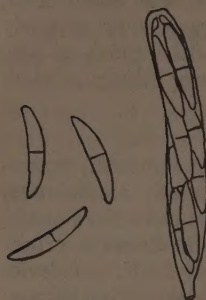
Many of the sori in the present gathering are parasitised by *Tuberculina*.

***Mycosphaerella Tristaniae*, Wakef.**

*Maculae* amphigenae, rotundatae, ad 1.2 cm. diametro, rubiginosae, linea fusca delimitatae. *Perithecia* immersa, sparsa, punctiformia, amphigena. *Asci* ovati vel pyriformes,  $20-25 \times 12\mu$ . *Spores* subdistichae, oblongae, utrinque rotundatae, circa  $7-10 \times 2.5-3\mu$ .

**FEDERATED MALAY STATES.** Penang Hill, on living leaves of *Tristania Griffithsii*, Kurz, T. F. Chipp, No. 4694, Aug. 1919.



**Diaporthe (Chorostate) curvatispora, Wakef.**

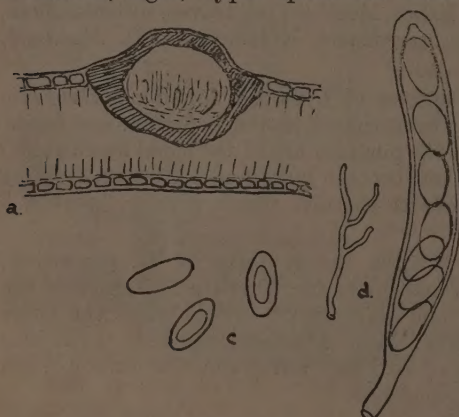
*Diaporthe curvatispora.*  
Ascus and 3 spores  $\times 500$ .

*Stromata* sparsa, minuta, valsea, epidermide pustulato-elevata tecta. *Perithecia* in singulo stromate pauca (3-4), subglobosa, ostiolis subconvergentibus. *Asci* cylindracei, apice truncati, sessiles vel brevissime stipitati,  $80-90 \times 12\mu$ . *Sporae* distichae, hyalinae, fusoideae, inaequilaterales, curvatae, uniseptatae, non constrictae,  $28-32 \times 4.5-5\mu$ .

INDIA. Sibsagar, on bark of *Mesua ferrea*, Linn., R. S. Hole, Nov. 1921.

**Phyllachora Proteae, Wakef.**

*Stromata* epiphylla, sparsa, minuta, circa  $50\mu$  diametro, rotundata, nigra, clypeo epidermali centro elevato tecta. *Loculi*



*Phyllachora Proteae.*  
a Stroma vertical section.  
b Ascus  
c spores  
d Paraphysis }  $\times 500$ .

*perithecia*iformes, solitarii, in mesophyllo immersi, globosi, pariete stromatico atro crasso circumdati. *Asci* paraphysati, cylindracei, brevissime stipitati,  $120-150 \times 12-15\mu$ . *Paraphyses* ramosae, filiformes, ascos superantes. *Sporae* monostichae, ovatae, utrinque angustatae,  $19-22 \times 8-9\mu$ .

SOUTH AFRICA.  
Klapmutz, Cape

Colony, on leaves of *Protea mellifera*, Thunb. P. A. Van der Bijl, No. 357.

The unilocular stromata would suggest the genus *Oligostroma*, Syd., the type species of which also occurs on *Protea*. The present plant however differs entirely from *O. Proteae* not only in habit but also in microscopic characters. In *O. Proteae* the stromata are aggregated to form conspicuous, raised black spots, whereas in *P. Proteae* they remain as minute solitary spots, sunken except for the central portion where the ostiole occurs. In section the stromatic wall surrounding the loculus is more strongly developed than in *O. Proteae*, and there is a distinct, though very small, epidermal clypeus. Furthermore the spores are those of the genus *Phyllachora*, shorter than those of *Oligostroma* and not septate.

**Hendersonia Osteospermi, Wakef.**

*Maculae* orbiculares, concentricae zonatae, pallidae, zona obscuriore brunnea circumdatae. *Pycnidia* epiphylla, sparsa, minuta, pariete tenui plectenchymatico. *Conidia* cylindracea fusca, asperulata, 3-septata, non vel vix constricta,  $20-23 \times 6-7\mu$ .

SOUTH AFRICA. Kewboom, Cape Province, on living leaves of *Osteospermum*, P. A. Van der Bijl, No. 409.

The species is characterised by the irregular outline of the spores. The wall can scarcely be called verrucose, but apparently a few minute flattened warts are present which give a somewhat wavy appearance when the spore is viewed in optical section.

**Colletotrichum Pterocelastri, Wakef.**

*Maculae* amphigenae, parvae, 1-1.5 mm. diametro, sparsae vel confluentes, pallidae, purpureo-cinctae. *Acervuli* minutissimi, atrii, pauci, in centro macularum insidentes. *Setulae* numerosae, fuscidulae, cylindraceae, apice hyalino rotundatae vel attenuatae. *Conidia* oblonga, hyalina, guttulata,  $15-17 \times 4\mu$ .

SOUTH AFRICA. Knysna, Cape Province, on living leaves of *Pterocelastus variabilis*, Sond., P. A. Van de Bijl, No. 404.

*Colletotrichum Pterocelastri*.  
Seta and Conidia  $\times 500$ .

**XXVI.—CONTRIBUTIONS TO THE FLORA OF SIAM.****ADDITAMENTUM XII.**

W. G. CRAIB.

**Tetracera Loureiri**, *Pierre mss.* nom. nov. *T. fragrans*, Ridley in Journ. Str. Br. Roy. As. Soc., No. 59, p. 62 (1911) non Willdem. et Th. Dur. (1899). *T. sarmentosa*, Vahl, var. *Loureiri*, Finet et Gagnep. in Fl. Gén. Indo-Chine, I. p. 16. *T. assa*, DC., var. *Loureiri*, Finet et Gagnep. in Bull. Soc. Bot. Fr., Mém. 4, p. 3.

Bangkok, Zimmermann 74, 180, Kerr 4357, Marcan 325, Mrs. Williamson (ex Ridley, l.c.), Anghin, Schomburgk 261. Sriracha, Mrs. D. J. Collins 243. Muong Pran, Pierre 225. Luang, Pierre 224. Prachuab, Winit 318.

*Distr.* Perlis, Cambodia, CochinChina.

Siamese name, Thao orakon (ex Winit).

**Manglietia Garrettii**, *Craib* [Magnoliaceae-Magnolieae]; a *M. glauca*, Blume, foliis majoribus, pro rata angustioribus, nervulis rete laxius efficientibus, fructu majore recedit.

*Arbor* ramulis primo adpresse puberulis cito glabrescentibus cinereis pauci-lenticellatis. *Folia* oblanceolato-oblonga vel oblonga, apice obtuse acuminata, basi cuneata lateve cuneata, ad 28 cm. longa et 9.3 cm. lata, rigide chartacea, glabra, subtus pallidiora, nervis lateralibus utrinque 12–16 intra marginem anastomosantibus supra subprominulis subtus prominentibus, nervulis reticulationem pagina utraque subprominulam efficientibus, margine integra; petioli ad 3 cm. longi, supra parum canaliculati; stipulae fugaces, 4 cm. longae, adpresse ferrugineo-puberulae. *Flores* adhuc ignoti. *Fructus* ei *M. glaucae*, Blume, similis sed major.

S.W. of peak Doi Pah Khow, near crest of ridge, 1320 m., Garrett 114.

**Michelia Kerrii**, *Craib* [Magnoliaceae-Magnolieae]; ab affini *M. Champaca*, Linn., foliis arcte reticulatis subtus saltem juvenilibus glaucis, floribus albis differt.

*Arbor* circa 10 m. alta (ex *Kerr*); ramuli graciles, juventute molliter adpresse ferrugineo-pubescentes vel subsericei, mox glabrescentes, fusco-corticati, inconspicue pauci-lenticellati. *Folia* lanceolata, oblongo-lanceolata, vel late lanceolata, apice acuminata vel gradatim angustata, summo apice breviter apiculata, basi saepissime inaequilaterialia, cuneata, vel saepe latere altero cuneata, altero fere rotundato-cuneata, usque ad 15 cm. longa et 4.3 cm. lata, rigide chartacea, primo supra pilis sericeis sparse instructa, subtus pilis brevibus albis densius instructa, mox glabra vel fere glabra, supra sicco viridia, subtus saltem juvenilia sed saepissime et matura glauca, nervis lateralibus utrinque circa 12 bene intra marginem anastomosantibus pagina superiore subconspicuis inferiore conspicuis, nervulis rete pagina utraque prominulum efficientibus, petiolo ad 1.5 cm. longo supra anguste canaliculato suffulta; stipulae fugaces, circa 1.3 cm. longae, extra adpresse ferrugineo-pubescentes. *Flores* axillares, solitarii, albi, odorati (ex *Kerr*); alabastra anguste ovoidea vel oblongo-ovoidea, acuminata, adpresse ferrugineo-pubescentia; pedicelli breves. *Petala* 12, acutiuscula, 2.5 cm. longa, 4 mm. lata, glabra. *Stamina* 6.5 mm. longa, connectivo excurrente apiculata. *Gynophorum* circa 3 mm. longum. *Carpella* breviter pubescentia, stylo 1.25 mm. longo.

Doi Sutep, c. 1650 m., evergreen jungle, *Kerr* 4679.

**Canangium fruticosum**, *Craib* [Anonaceae-Unoneae]; *C. odorato* (Hook. f. et Thoms.), simile sed habitu humiliore, foliis basi saepissime cuneatis, pedicellis longioribus differt.

*Frutex* 3–4-metralis (ex *Kerr*); ramuli graciles, juventute densius breviter griseo-pubescentes, mox puberuli, demum glabri, cortice rubro-brunneo vel fusco-brunneo parcius sed conspicue lenticellato reticulato obtecti. *Folia* late lanceolata, oblongo-



lanceolata, vel rarissime elliptica, apice longius acuminata vel fere caudato-acuminata, summo apice acuta, basi cuneata, rarius rotundato-cuneata, ad 13.5 cm. longa et 4.8 cm. lata, chartacea, subtus pallidiora, ad costam nervosque laterales pagina utraque crispatis puberula, nervis lateralibus utrinque 6-8 supra conspicuis subtus prominulis, nervulis inter se sat distantibus subtus subconspicuis, margine integra; petioli graciles ad 1 cm. longi, ut ramuli pubescentes, supra anguste canaliculati. *Flores* ramulis novellis gesti, pedicellis gracilibus usque ad 5 cm. longis densius griseo-puberulis suffulti. *Sepala* 3 (interdum 4), deltoidea, acutiuscula, fere 1 cm. longa, 6 mm. lata, dorso densius griseo- vel fulvo-griseo-puberula, intra medio fere glabra, marginem apicem et basem versus similiter puberula. *Petala* saepissime 6, rarius 8, ad 7 cm. longa et 6 mm. lata, pagina utraque juventute ut sepala puberula, mox sparsius puberula. *Receptaculum* dense breviter pubescens. *Stamina* apiculo puberulo circa 1 mm. longo incluso 2.5 mm. longa. *Carpella* glabra.

Chiengmai, 300 m., cult., *Kerr* 3219. Bangkok, under 5 m., commonly cultivated, *Kerr* 4435.

Lao name, Săbŭn nga kŭa (ex *Kerr*).

**Goniiothalamus Marcanii**, *Craib* [Anonaceae-Mitrephoreae]; *G. tamirensi*, Pierre ex Finet et Gagnep., affinis, sed minus pubescens, foliorum paginae inferioris et ramulorum pilis brevioribus, foliorum nervis lateralibus minus patulis, petalis exterioribus minus angustatis.

*Fruticulus* circa 2 m. altus (ex *Kerr*); ramuli juventute densius ferrugineo-pubescentes, mox puberuli, demum glabri, cortice fusco-brunneo obtecti, lenticellis sparsis. *Folia* oblonga, apice breviter obtuse acuminata, basi cuneata vel rotundato-cuneata, saepe inaequilateralia, 11-17 cm. longa, 4-5.7 cm. lata, chartacea vel rigide chartacea, supra primo parce pubescentia, cito glabra nisi ad costam saepe puberula, subtus ad costam breviter ferrugineo-pubescentia, aliter demum fere glabra, nervis lateralibus utrinque 9-12 intra marginem anastomosantibus supra conspicuis parumve prominulis subtus prominulis, margine integra, petiolo 7-10 mm. longo ut ramulis ferrugineo-pubescente suffulta. *Flores* solitarii, supra-axillares, viridi-lutei (ex *Kerr*). *Sepala* ovata vel elliptico-ovata, acuminata, acutiuscula, 6 mm. longa, 5.5 mm. lata, dorso sparse ferrugineo-hirsuta, intra glabra, ferrugineo-ciliata. *Petala* exteriora ovata, obtusa, ungui lato circa 3 mm. longo incluso 1.4 cm. longa, 9.5 mm. lata, utrinque sparsius adpresse pubescentia, interiora 1.1 cm. alta, extra adpresse pubescentia, inferne ciliolata. *Receptaculum* longius sed haud dense pubescens. *Stamina* 1.5 mm. longa, apice truncata et puberula. *Carpella* 1.25 mm. alta, ovulis duobus subbasilaribus, stylo 2 mm. longo.

Srirācha, evergreen jungle, *Marcan* 143, *Kerr* 4129.

**Goniiothalamus desmoides**, *Craib* [Anonaceae-Mitrephoreae]; species nova facie *Unonae discoloris*, var. *siamensi*, Scheff., similis,

ovario adpresse pubescente, stylo perbrevis, stigmatibus grandibus, ovulo subbasilari solitario distinguenda.

*Frutex*, ramulis juventute dense plus minusve adpresse ferrugineo-tomentellis. *Folia* oblonga vel oblanceolato-oblonga, apice acuminata, subobtusata, basi rotundata, cuneato-rotundata vel cordatula, ad 15 cm. longa et 5.5 cm. lata, chartacea, supra nisi ad costam ubi pubescentia puberulae matura glabra, juvenilia aliter haud diu albo-pilosa, subtus breviter cupreo-vel rufo-pubescentia, nervis lateralibus utrinque 15-17 supra subconspicuis subtus prominentibus, nervulis subtus conspicuis vel prominulis, margine integra, petiolo 4-5 mm. longo ut ramulis induto suffulta. *Flores* solitarii, conspicue supra-axillares, breviter pedicellati, pallide virides, odorati (ex *Kerr*); bracteola paulo infra calycem sita, late lanceolata, 4 mm. longa. *Sepala* late ovata, obtusata, circa 6 mm. longa, 6 mm. lata, facie utraque adpresse cupreo-pubescentia. *Petala* exteriora anguste oblonga, apice obtusata, 3.4 cm. longa, 1 cm. lata, facie utraque adpresse pubescentia, interiora circa 8 mm. longa, late breviter unguiculata. *Antherae* 1 mm. longae, loculis lateralibus, connectivo apice truncato. *Carpella* adpresse pubescentia, 1 mm. longa, apice constricta; stylus circa 0.5 mm. longus, stigmatibus truncato circa 0.5 mm. lato; ovula solitaria, subbasilaria.

Chiengmai, 300 m., cult., *Kerr* 3312.

**Mitrephora Collinsae**, *Craib* [Anonaceae-Mitrephoreae]; ab affini *M. Edwardsii*, Pierre, petiolo longiore, cortice fuscior inter alia distinguenda.

*Ramuli* primo densius fulvo-vel ferrugineo-pubescentes, mox glabri, fulvo-corticati, lenticellis paucis subconspicuis. *Folia* oblonga vel subelliptica, apice breviter acuminata, rarius rotundata, basi cordatula vel fere truncata ad 8.2 cm. longa et 5 cm. lata, subcoriacea, supra ad costam densius molliter pubescentia, demum glabra, subtus primo dense adpresse fulvo-pubescentia, demum ad costam nervosque laterales breviter pubescentia, aliter puberula vel fere glabra, nervis lateralibus utrinque circa 12 supra parum impressis subtus prominentibus, nervulis subtus subconspicuis, margine integra, petiolo 3-4 mm. longo suffulta. *Flores* in speciminibus visis infeliciter manci. *Alabastra* densius adpresse ferrugineo-pubescentia.

S. Siam, *Mrs. D. J. Collins* 507.

**Sphaerocoryne clavipes**, *Craib*, comb. nov. *S. siamensis*, Scheff. mss. (ex *Boerl.* in Ic. Bogor. t. LXIX.). *Unona Mesnyi*, Pierre, Fl. For. Coch. t. 17 pro parte (1880). *Polyalthia siamensis*, Boerl., l.c. *Popowia Mesnyi*, Craib in Kew Bull. 1914 p. 5. *P. aberrans*, Pierre ex Finet et Gagnep. in Bull. Soc. Bot. Fr., Mém. 4 p. 109 et in Fl. Gén. Indo-Chine I. p. 83, vix *Polyalthia aberrans*, Maingay. *Melodorum clavipes*, Hance in Journ. Bot. 1877 p. 328.



Sriracha, Mrs. D. J. Collins 6, Marcan 189. Bangkok Palace Gardens, Murton 30. Chiangmai, 300 m., cult. Kerr 3525.

*Distr.* Cambodia, Cochinchina, Java (cult.), [Laos ex Fl. Gén. Indo-Chine].

To this genus also belongs *Popowia diospyrifolia*, Pierre ex Finet et Gagnep. (= *S. diospyrifolia*, comb. nov.).

**Melodorum affine**, Craib [Anonaceae-Xylopieae]; ab affini *M. oblongo*, Craib, pedicellis fructiferis brevioribus, foliis tenuioribus, nervis lateralibus supra haud impressis recedit.

*Ramuli* volubiles, primo ferrugineo-tomentelli, mox glabri, brunneo- vel fusco-brunneo-corticati, lenticellis subconspicuis. *Folia* oblonga vel cuneato-oblonga, apice rotundata, obtusa, vel interdum breviter acuminata, basi cuneata vel cuneato-rotundata, usque ad 18.5 cm. longa et 6.2 cm. lata, rigide chartacea, supra ad costam tomentella, subtus pallidiora, tomentella praetereaue ad costam nervosque pilis longioribus instructa, nervis lateralibus utrinque 15-18 supra saepissime subconspicuis subtus prominentibus, costa supra impressa; petioli 7-10 mm. longi, sat crassi, supra canaliculati. *Pedicelli* fructiferi terminales, 1 cm. longi, bracteolis persistentibus. *Receptaculum* parum incrassatum. *Carpella* (an omnino matura?) ellipsoideo-orbicularia, 1.8 cm. longa, stipite 2.5 cm. longo suffulta, dense ferrugineo-tomentella.

Doi Sutep, 660 m., mixed jungle, Kerr 3259.

**Alphonsea lutea**, Hook. f. et Thoms, var. **longipes**, Craib [Anonaceae-Miliuseae]; varietas pedicellis elongatis distincta.

*Arbor* sempervirens, 50-pedalis, trunco cortice laevi griseo oblecto (ex *Vanpruk*); ramuli primo breviter adpresse fulvo-pubescentes, mox glabri, cortice cinereo reticulato oblecti. *Folia* oblongo-lanceolata, apice subacuminata, basi cuneata vel rotundato-cuneata, ad 14.5 cm. longa et 4 cm. lata, rigide chartacea, supra ad costam primo breviter pubescentia, mox puberula, subtus matura glabra vel subglabra, nervis lateralibus utrinque ad 10 pagina utraque conspicuis sed vix prominulis, nervulis rete gracile efficientibus, petiolo circa 4 mm. longo suffulta. *Flores* in fasciculis e ramulis annotinis ortis dispositi, pedicellis 2 cm. longitudine fere attingentibus infra medium bracteolatis ut alabastris adpresse fulvo-pubescentibus.

Prê, Mê Song, 360 m., *Vanpruk* 444.

This plant, treated here as a variety, in all probability represents quite a valid species. Receipt of more adequate material, both flowering and fruiting, is required for certainty.

**Capparis auricans**, Craib, comb. nov. *C. grandis*, Linn. f., var. *auricans*, Kurz, For. Fl. Br. Burma, vol. I., p. 64.

Mê Chang, deciduous jungle, 300 m., Kerr 3177.

*Distr.* Burma, Smales. Frequent in Prome district (fide Kurz, l.c.).

**Capparis mekongensis**, Gagnep., var. **crispata**, Craib [Cappariaceae-Cappareae]; varietas nova foliis angustioribus apice mucronatis brevius petiolatis, maturis pagina superiore medio et ibi praesertim ad costam breviter crispatis pubescentibus cognoscenda.

Muang Sa, Nan, 180 m., dry mixed jungle, evergreen tree c. 9 m. high, *Kerr* 2396.

*C. mekongensis* is known to the writer from description only. *Kerr*'s plant which differs mainly in the points noted has had to be treated therefore in the meantime as a variety. A very similar plant was collected at Lampun (*Winit* 99), but the specimens forwarded consist of young flower-bearing twigs only. The collector further expresses a doubt as to whether the plant is deciduous or not.

**Euonymus auriculatus**, Craib [Celastraceae-Celastreae]; species nova fructibus echinatis foliis basi cordatis breviter petiolatis distincta.

*Arbor* sempervirens, circa 10-metralis (ex *Kerr*), ramulis glabris pallide viridibus angulatis, internodiis inferioribus elongatis superioribus brevibus. *Folia* opposita vel subopposita, oblanceolata, apice acuminata, summo apice mucronata, basi auriculato-cordata, ad 19 cm. longa et 5.4 cm. lata, subcoriacea, pagina utraque viridia sed inferiore pallidiora, glabra, nervis lateralibus utrinque 13-16 pagina utraque prominulis, nervis transversis subprominulis, margine integra, petiolo ad 6 mm. longo sat crasso fuscescente supra dense puberulo suffulta. *Pedicelli* ad apices ramulorum novellorum gesti, solitarii, axillares, 2-4 cm. longi, longitudinaliter breviter pubescentes. *Fructus* juvenilis dense echinatus, stylo trifido saepissime coronatus, basi calyce persistente ornatus; calycis segmenta reflexa, circa 5 mm. longa, acuminata, nervosa, intra ima basi puberula.

Mê Ta, 300 m., *Kerr* 3620.

**Crotalaria Kerrii**, Craib [Leguminosae-Genisteae]; ab affini *C. Stocksii*, Hook. f., foliis haud punctatis distinguenda.

*Herba* basi lignosa, ad 25 cm. alta, copiose graciliter ramosa, caule ramulisque breviter pubescentibus. *Folia* lanceolata, oblongo-lanceolata vel elliptico-oblonga, apice apiculata, rarius acutiuscula, basi cuneata, ad 3.3 cm. longa et 1.3 cm. lata, chartacea, pagina utraque pilis tenuibus albis plus minusve adpressis instructa, subtus parum pallidiora, nervis lateralibus utrinque 5-7 supra vix conspicuis subtus prominulis, costa supra impressa subtus prominente, nervulis haud conspicuis, margine integra; petioli circa 1 mm. longi; stipulae deciduae, foliaceae, dimidio-ovatae, acutae, 2 mm. longae, 1 mm. latae, indumento foliorum instructae, saepe divergentes. *Pedunculi* communes axillares, graciles, saepissime 2-flori, 2 cm. longitudine fere attingentes, pedicellis circa 4 mm. longis, pedunculis pedicellisque pilis iis caulium similibus instructis, bracteolis filiformibus 1.5 mm. longis paulo infra calycem positae persistentibus; flores lutei (ex *Kerr*). *Calyx* extra pubescens, postice 4 mm., antice

fere 5 mm. longus; lobi ciliati, acuti, postici 2.5 mm. longi, 0.75 mm. lati, lobo antico 3.5 mm. longo. *Vexillum* 4.5 mm. longum ungui brevi lato ciliato incluso, basi bicallosum, marginibus basi poculiformibus; alae 4 mm. longae, 1.3 mm. latae, vix unguiculatae; carina 3.5 mm. longa, apice 4.25 mm. lata, ungui 0.5 mm. longo. *Ovarium* glabrum, 2.5 mm. altum, stylo 4.25 mm. longo glabro. *Legumen* circa 1.5 cm. longum, styli parte basali persistente apiculatum, basi in stipitem circa 2 mm. longum angustatum; semina sat numerosa, 1.5 mm. longa, viridi-straminea, mox brunnescentia, nitida.

Near Prê, Mê Ta, dry bamboo jungle, 240 m., *Kerr* 2352.

**Indigofera changensis**, *Craib* [Leguminosae-Galegeae]; ab *I. squalida*, Prain, cui habitu persimilis, squamis paucioribus, pilis et caulium et foliorum costae pagina inferiore divergentibus haud arcte adpressis distinguenda.

*Caules* ad 24 cm. alti, pallidi, pilis albis brevibus divergentibus instructi, sulcati. *Folia* simplicia, oblanceolata vel oblongo-oblanceolata, apice rotundata, rarius breviter acuminata, costa excurrente apiculata, basi cuneata, ad 5.7 cm. longa et 1.5 cm. vel rarius 2.2 cm. lata, sat rigida, supra pilis brevibus medifixis aspera, subtus pallidiora, pilis iisdem sed ad costam plus minusve divergentibus praetereaue squamis paucis instructa, nervis lateralibus utrinque circa 8 subtus subprominulis, margine integra, petiolo 2 mm. longo suffulta; stipulae persistentes, subulatae, 4 mm. longae. *Racemi* axillares, pedunculo communi incluso circa 8 mm. longi, bracteis angustis alabastris subaequilongis, alabastris extra dense albo-hirsutis, pedicellis brevibus. *Calyx* 2.5 mm. longus, lobis posticis aliis paulo latioribus et brevioribus, omnibus acutis, posticis lanceolatis, aliis lineari-lanceolatis. *Vexillum* ovato-rhomboideum, 4.5 mm. longum, 2 mm. latum. *Ovarium* 1.75 mm. altum, adpresse pubescens.

Mê Chang, deciduous jungle, 300 m., *Kerr* 3607.

**Desmodium rufihirsutum**, *Craib* [Leguminosae-Hedysareae]; a *D. lasiocarpo*, DC., cui affinis, bracteis elongatis recedit.

*Caules* circa 4-pedales, pilis rufis divergentibus sat rigidis copiose instructi, cortice brunneo striato obtecti. *Folia* simplicia, ovato-elliptica vel elliptica, apice acuminata, acuta, basi rotundata, ad 16 cm. longa et 9.5 cm. lata, rigide chartacea, supra pilis albis basi tuberculatis sat rigidis hirsuta, subtus pubescentia, nervis lateralibus utrinque 5-7 supra conspicuis subtus prominentibus, margine integra, interdum undulata, densius ciliata, petiolo ad 8 mm. longo dense rufo-pubescente suffulta; stipulae e basi 3-5 mm. lata subulatae, 8 mm. longae. *Racemi* in axillis foliorum inferiorum solitarii, superiorum plures, praetereaue in paniculam fere efoliatam terminalem dispositi, ad 10 cm. longi, breviter pedunculati, densiflori; bractee alabastra longe superantes, subulatae, circa 1 cm. longae, pilis albis divergentibus sat copiose instructae; pedicelli 2 mm. longi. *Calycis* tubus circa 1 mm. longus; lobi duo postici in unum deltoideum apice breviter bilobum 1 mm. longum connati, laterales antico paululo



longiores, antico 1.5 mm. longo angusto. *Vexillum* obovatum, 5 mm. longum, vix unguiculatum; alae 3.5 mm. longae, ungui 1 mm. longo excluso; carina 4.5 mm. longa. *Ovarium* 3.5 mm. altum, adpresse pubescens, stylo 2.5 mm. longo.

Doi Sutep, mixed jungle on edge of old clearing, flowers mauve, 660 m., *Kerr* 2763.

*Distr.* Burma.

***Itea puberula***, *Craib* [Saxifragaceae-Escallonieae]; *I. macrophyllae*, Wall., affinis, sed foliorum pagina inferiore et racemis puberulis, foliis basi cuneatis vel late cuneatis distinguenda.

*Arbor* (ex *Kerr*), ramulis juventute puberulis viridibus mox fusciscentibus glabrescentibus. *Folia* oblanceolato-oblonga vel elliptico-oblonga, apice acuminata, acuta, basi cuneata vel late cuneata, usque ad 32 cm. longa et 11 cm. lata, chartacea, pagina utraque ad costam nervosque laterales puberula, subtus pallidiora, nervis lateralibus utrinque ad 15 supra conspicuis subtus prominentibus, nervulis inter se parallelibus sat approximatis pagina utraque conspicuis, margine basem versus integra vel subintegra, apicem versus serrulata vel denticulata, petiolo ad 3 cm. longo supra canaliculato suffulta. *Racemi* solitarii, gemini, vel tres, rarius quatuor in foliorum axillis positi, pedunculo communi brevi incluso circa 20 cm. longi, rhachi pedicellis et alabastris puberulis; pedicelli 2-2.5 mm. longi; flores albi (ex *Kerr*). *Sepala* deltoideo-lanceolata, acuta, circa 1 mm. longa, erecta vel mox incurva. *Petala* recurva, lineari-lanceolata, acuta, 2.5 mm. longa, 0.75 mm. lata. *Filamenta* 1.25 mm. longa, glabra. *Stylus* circa 1.5 mm. longus, superne gradatim angustatus, glaber, stigmatibus capitato.

Doi Sutep, 1350 m., evergreen jungle, *Kerr* 2000.

***Ehretia Winitii***, *Craib* [Boraginaceae-Ehretieae]; ab affini *E. aspera* Roxb., ramulis foliisque haud dense aspero-pubescentibus recedit.

*Fruticulus* 1-3-pedalis (ex *Winit*), ramulis cito glabris cortice cinereo vel brunneo-cinereo obtectis. *Folia* obovata vel elliptico-obovata, apice rotundata, basi cuneata, ad 5.2 cm. longa et 2.2 cm. lata, sat rigida, supra pilis basi tuberculatis hic et illic instructa, scabrida, subtus pallidiora, parce pubescentia, nervis lateralibus utrinque circa 6 intra marginem anastomosantibus supra vix conspicuis subtus prominentibus, margine integra, petiolo circa 3 mm. longo suffulta. *Inflorescentia* terminalis, circa 2 cm. diametro, pedunculo communi 1.5 cm. longo suffulta. *Calyx* sicco fuscus, fere ad basem in segmenta 5 lanceolata acuta basi 0.75 mm. lata dorso parce pubescentia ciliolata partitus. *Corolla* azurea, demum alba (ex *Winit*); tubus 4 mm. longus; lobi oblongi, 3 mm. longi, 1.75 mm. lati. *Filamenta* paulo infra corollae tubi apicem inserta, 3 mm. longa, glabra; antherae oblongae, 1.5 mm. longae, dorsifixae. *Ovarium* in calyce bene inclusum, stylo 4.5 mm. longo apice breviter 2-ramoso.

Kanburi, near swamp in open jungle, 18 m., *Winit* 532.

Siamese name. Chan Nam.

**Chirita tubulosa**, *Craib* [Gesneraceae-Cyrtandreae] a *C. barbata*, Sprague, partibus omnibus pallidioribus brevius et sparsius pilosis, foliis basi rotundatis vel subcordatis haud cuneatis, calyce tubuloso lobis lanceolatis erectis, corolla minore, lobo infimo pro rata longiore, antheris multo brevius barbatis, inter alia distinguenda.

*Caulis* sat crassus, viridis, pilis divergentibus sparse instructus. *Folia* oblonga, basi rotundata vel subcordata, ad 19 cm. longa et 6 cm. lata, supra viridia, pilis breviusculis subadpressis sat rigidis instructa, mox plus minusve glabrescentia, subtus pallidiora, pilis similibus instructa, nervis lateralibus utrinque circa 20 supra conspicuis subtus prominentibus, margine integra, distincte sed breviter petiolata. *Inflorescentia* ei *C. barbatae* similis, pedicellis ad 15 mm. longis. *Calyx* viridis, distincte nervosus, tubo circa 6 mm. longo, lobis lanceolatis acutis haud reflexis circa 4 mm. longis extra pilis subrigidis sparse instructus. *Corolla* e calyce 3 cm. exserta, extra alba, pilis erectis instructa, intra alba nisi e basi lobi infimi luteo-lineata (ut in *C. barbata*) praeterea e staminum insertionem latere utroque linea purpurea multo angustiore brevioraque ornata, lobo infimo 1 cm. longo et lato, lobis lateralibus circa 5 mm. longis quam posticis paulo longioribus. *Stamina* iis *C. barbatae* similia nisi antheris pallidis brevius barbatis et filamentis ad angulos macula atro-purpurea instructis. *Ovarium* viride, ima basi glabrum, superne sparse pubescens, 1 cm. longum, stylo circa 15 mm. longo breviter pubescente albo, stigmatibus bifido.

Described from living plants grown from seed collected by Dr. A. F. G. Kerr. The plants flowered in October of last year.

**Radermachera Pagetii**, *Craib* [Bignoniaceae-Tecomeae]; a speciebus aliis calyce tuberculato recedit.

*Arbor* 30–60-pedalis (ex *Paget et Marcan*); ramuli floriferi sat crassi, primo sicco fusci, dein cortice cinereo obtekti, sparse lenticellati, foliorum cicatricibus ellipticis vel late ellipticis parum elevatis copiose notati. *Folia* pinnata, ad 17 cm. longa petiolo 4–5·7 cm. longo excluso; foliola oblongo-lanceolata vel ovato-lanceolata, apice acuminata, acuta obtusave, basi inaequilateralia, saepissime rotundata, ad 6·5 cm. longa et 2·2 cm. lata, chartacea, glabra, subtus parum pallidiora, nervis lateralibus utrinque 7–8 subtus fere prominulis, margine integra, petiolulo circa 5 mm. longo suffulta. *Thyrsi* terminales, breviter pedunculati; pedunculi partiales verticillati, 1–1·5 cm. longi; pedicelli circa 1·5 cm. longi, infra medium bracteolati, bracteolis parvis angustis, et barbati, aliter praesertim superne sparse pilosi. *Calyx* 1·5–1·7 cm. longus, praesertim inferne dense tuberculatus. *Corolla*, lobis inclusis, 6 cm. longa, alba vel pallide lilacina (ex *Marcan*), tubo infra staminum insertionem intra pubescente. *Filamenta* 1 cm. supra corollae tubi basem inserta, circa 1·5 cm. longa, antherarum loculis divaricatis 3 mm. longis. *Ovarium* circa 1 cm. altum, stylo 2·5 cm. longo. *Fructus* 14 cm. longus, fuscus, densius tuberculatus; semina,

ala inclusa, 3.5 cm. longa.—*Radermachera* sp.n., Craib, Contrib Fl. Siam, p. 151.

Bangkok, Legation Garden, *Paget*. Bangkok, cult., *Marcan* 617. Petchabouri, thicket, 50 m., *Marcan* 621 (almost certainly wild).

Siamese name, Kaa kow (ex *Marcan*).

**Cinnamomum (Camphora) siamense**, *Craib* [Lauraceae-Perseae] a speciebus indicis hujus gregis ramulis gracilibus, foliis minoribus subtus glabris haud glaucis distinctum.

*Arbor* ramulis gracilibus primo pallide brunneis mox fusco-brunneis pauci-lenticellatis. *Folia* oblongo-elliptica, rarius lanceolata ovatave, apice angustata vel subacuminata, mucronulata, basi cuneata, saepe inaequilateralia, ad 11 cm. longa et 4.5 cm. lata, coriacea vel chartaceo-coriacea, glabra, subtus parum pallidiora, nervis lateralibus utrinque 4-6 supra conspicuis subtus prominentibus intra marginem anastomosantibus, duobus infimis intramarginalibus, nervulis rete gracile subtus prominulum efficientibus, margine integra, petiolo circa 1 cm. longo supra canaliculato suffulta. *Flores* ignoti. *Fructus* immaturus; receptaculum incrassatum, elongato-turbinatum, 1.6 cm. longum, apice 7 mm. diametro, perianthii segmentis delapsis.

N. Siam, *Kerr* 2511.

## XXVII.—MISCELLANEOUS NOTES.

**RETIREMENT OF MR. W. WATSON.**—On June 24th MR. W. WATSON, A.L.S., who has been Curator of the Royal Botanic Gardens, Kew, since August 1st, 1901, retired under the age limit. Mr. Watson entered Kew as Foreman in 1879 and was appointed Assistant Curator in 1886. He is succeeded by MR. W. J. BEAN, who has been Assistant Curator since February 7th, 1900, having entered Kew in 1883 as a young gardener. The post vacated by Mr. Bean is not being filled, but the five Foremen, Messrs. W. IRVING, C. P. RAFFILL, A. OSBORN, W. TAYLOR and J. COUTTS, have been given the rank of Assistant Curators.

MR. ARCHIBALD T. BROOKS, Agricultural Superintendent, St. Lucia (*K.B.*, 1903, 30), has been appointed by the Secretary of State for the Colonies, on the recommendation of Kew, Director of Agriculture in the Gambia.

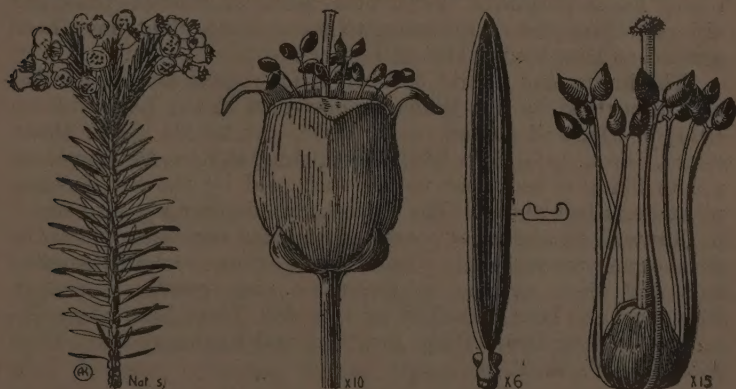
**Presentation of the Forrest Collection.**—The important and valuable collections made by Mr. George Forrest during the period 1916-1919, when he was engaged on his botanical explorations in N.W. Yunnan and S.E. Tibet—chiefly on the ranges which divide the three great rivers, the Yangtze-kiang, the Mekong and the Salween, draining those regions—have been very generously presented to the Royal Botanic Gardens, Kew, by the Syndicate under whose auspices Mr. Forrest carried out his explorations. Out of the 6000 numbers collected during



those years an almost complete set has been presented to Kew, all labelled with Forrest's numbers and determined at the Royal Botanic Gardens, Edinburgh. Previous collections by Forrest are already well represented in the Herbarium and the present consignment which keeps up to the former standard in excellent selection and preservation will form a valuable addition to our collections from these mountains.

***Erica vagans*, L., var. *kevernensis*, Turill.**—*Erica vagans* is well known as one of the characteristic "Lusitanian" plants of the British flora, and it is therefore of additional interest to record the occurrence of an aberrant plant which differs markedly from the common type.

This new plant was discovered and introduced into cultivation by Mr. P. D. Williams, of Lanarth, and he has kindly furnished the following particulars:—"When partridge shooting at Trelanvean farm, St. Keverne, on the north-west corner of a rough moor (2248, Ordnance Survey 1907), I noticed a small plant of this remarkable form of *Erica vagans*. Next day I took cuttings (which fortunately grew) and also layered the plant. The following year the original plant and the layers were trodden into the ground by cattle and destroyed. I have a group of it in my garden and find that in normal years it never seeds, but that it sometimes sports. In 1921 it seeded. It is remarkable that on the same day I found the only recorded plant of a natural hybrid of *Erica vagans* and *E. tetralix* (x *E. Williamsii*, Druce). This plant was about  $\frac{3}{4}$  of a mile to the west on plot 2788, Ordnance Survey 1907." Plants at Kew received from Mr. Williams have flourished and have been propagated so that they now occupy an entire bed between the T-range and the Succulent



House, near beds of typical *Erica vagans* and x *Erica Williamsii*. These plants have been kept under observation for about a year and the flower and fruit characters studied in living specimens.

The new plant differs from the usual form of the species in the shape and colour of its corollas, characters which are

not easy to make out in dried material. The corollas are broadly campanulate, with a wide open mouth, and well developed, more or less reflexed lobes. The bending back of the corolla lobes varies with the age of the flowers, but in mature, though not faded, examples it is decidedly more marked than in typical *Erica vagans*. In colour the fresh corollas are a charming rose-pink with no tinge of purple. Careful examination of numerous plants, all apparently derived from the one original by vegetative propagation, has failed to detect any constant morphological differences between the leaves, calyx, androecium or gynoecium of the St. Keverne plant and typical *Erica vagans*, though the anthers are paler in the former and the seeds sometimes slightly larger, but their reticulation or shallow pitting is the same in both.

Horticulturally the St. Keverne variety is more desirable than the typical plant since the colour of the corollas is more pleasing. Its propagation by cuttings or layering is easy and it is likely that its cultivation will spread.

It is impossible at present to decide fully the botanical status of this plant. No morphological characters which would suggest a hybrid origin have been found. Mr. Williams records that the plant does not generally seed but sometimes sports. The examples at Kew have carried seed this last year (1921) almost as abundantly as the examples of typical *E. vagans*; whether or not this seed is viable remains to be seen. If plants are successfully raised from seeds it may be possible to suggest the mode of origin of the single individual originally found. At present its origin by mutation appears to be most likely, and we can only retain the name "St. Keverne" for it as a horticultural designation, or perhaps better still call it var. *kevernensis* with the following differential diagnosis: a planta typica corollis late campanulatis roseis haud purpureis, lobis plus minusve reflexis praecipue differt. Examples of reversion to the parent plant have been noticed at Kew by Dr. Hill and others.

The interesting hybrid between *Erica vagans* and *E. tetralix*, also discovered by Mr. Williams, described in the Kew Bulletin 1911, p. 378, and named  $\times E. Williamsii$  by Dr. G. C. Druce (Gard. Chron. 1911, ii., p. 388), is flourishing at Kew, the numerous plants filling a bed close to that occupied by the St. Keverne plant described above. The same keen observer has also found in Cornwall an abnormal condition of *Erica vagans* in which the floral organs are replaced by small leaves or bracts on an elongated axis and their number at the same time/greatly increased. This sport has been described by Worsdell (Plant Teratology II., p. 124), and by Druce (Rep. Bot. Soc. and Exchange Club, 1919, p. 569).—W. B. T.